

What Is Claimed Is:

1. A constant velocity ball joint in the form of a counter track joint, comprising:

an outer joint part with outer tracks, an inner joint part with inner tracks, torque transmitting balls which are received in pairs of tracks comprising said outer tracks and inner tracks which are curved outwardly with reference to a longitudinal joint axis, and a ball cage with cage windows in which the balls are held in a common plane and are guided on to an angle-bisecting plane when the joint is articulated;

first outer tracks, together with first inner tracks, form first pairs of tracks whose first control angles (β_1) open in a first axial direction (R_1) and in which first balls are held; and

second outer tracks, together with second inner tracks, form second pairs of tracks whose second control angles (β_2) open in a second axial direction (R_2) and in which second balls are held;

wherein the control angles (β_1 , β_2) are defined as angles between tangents at ball contact points in the tracks pairs; and

wherein the outer joint part and the inner joint part are axially displaceable relative to one another and the first control angles (β_1) and the second control angles (β_2) change in opposite senses when a relative axial displacement occurs, the axial displacement path (V_{\max}) being limited to a maximum value that changes the control angles (β_1 , β_2) so as to be not less than 8° for the smaller of the respective control angles (β_1 , β_2).

2. A joint according to claim 1, wherein in an axial position of the joint with identical control angles ($\beta_1 = \beta_2$), the ball cage comprises axial play relative to the outer joint part and the inner joint part.

3. A joint according to claim 1, wherein the axial displacement path is delimited by end edges of the inner joint part stopping against a spherical inner face of the ball cage.

4. A joint according to claim 2, wherein the axial displacement path is delimited by end edges of the inner joint part stopping against a spherical inner face of the ball cage.

5. A joint according to claim 3, wherein an inner face of the outer joint part is internally cylindrical.

6. A joint according to claim 3, wherein an inner face of the outer joint part is internally cylindrical.

7. A joint according to claim 1, wherein the axial displacement path is delimited by circumferential edges in the outer joint part stopping against a spherical outer face of the ball cage.

8. A joint according to claim 2, wherein the axial displacement path is delimited by circumferential edges in the outer joint part stopping against a spherical outer face of the ball cage.

9. A joint according to claim 7, wherein the circumferential edges comprise two inner cones in the outer joint part which are connected to one another by an inner cylinder.

10. A joint according to claim 8, wherein the circumferential edges comprise two inner cones in the outer joint part which are connected to one another by an inner cylinder.

11. A joint according to claim 7, wherein the inner face of
5 the ball cage is internally cylindrical.

12. A joint according to claim 8, wherein the inner face of the ball cage is internally cylindrical.